Appcelerator / IDC

Q4 Mobile Developer Report

A platform interest survey of 2,363 Appcelerator application developers from September 14-16, 2010

Developers See Strategic Advantage In Google Android Over Apple iOS Long-term

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Appcelerator / IDC
Q4 Mobile Developer Report

Summary

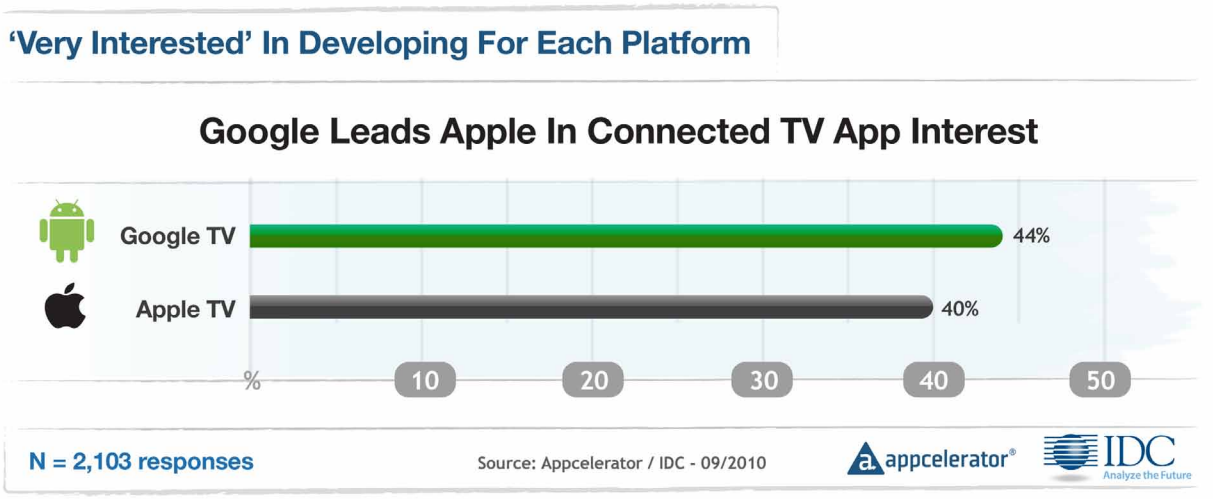
Appcelerator and IDC surveyed 2,363 Appcelerator Titanium developers from September 14-16, 2010 on perceptions surrounding mobile OS priorities, "anywhere computing" trends, and application development needs. One of the most discussed findings of Appcelerator's June 2010 survey revealed that 54.0% of developers said Android had the best long-term outlook compared to iOS at 40.4%. Fast forward three months beyond a successful iPhone 4 launch and Apple's recent announcement that it would be easing restrictions on developers and… **this gap has widened 10.1 points**. Now 58.6% of respondents in our new survey believe Android has a better long-term outlook over iOS (34.9%). WHY?

This quarter, Appcelerator and IDC focused on answering the "Big Why" question and discovered more insight into Android's strategic advantage with developers in embedded devices, especially in emerging areas like connected TV. In addition, as the **second largest application publisher** with over 4,000 Titanium apps in market and one of the **most extensive mobile APIs on the market**, Appcelerator and IDC also went deep on the applications developers are building and their use of popular Mobile Web 2.0 APIs like Amazon, Facebook Connect, Foursquare, Google Maps, PayPal, and Twitter.

Here are our top-level findings:

• 72% of developers say Android "is best positioned to power a large number and variety of connected devices in the future", compared to 25% for iOS. As we'll show in more detail, this begins to explain why 59% of developers now favor Android's long-term outlook, vs. 35% for iOS.

• Developers are also showing enthusiasm for connected TVs, with 44% saying they are 'very interested' in developing for Google TV vs. 40% for Apple TV. Explains Scott Ellison, VP Mobile & Wireless, IDC, "Apps are poised to help remake the television viewing experience just as they have remade the mobile experience. Television needs new and more effective ways to create immersive experiences, engage audiences with advertisers, integrate social networks, and drive viewership of original broadcasts" he added, "The television players who most effectively integrate app developers into their connected TV strategies are poised to potentially remake the television experience as we know it."



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• Apple iOS continues to dominate in all categories relating to market/revenue opportunity and current devices. iPhone continues to lead overall developer sentiment with 91% saying they are “very interested” in developing for the device compared to 82% for Android phones.

• Android tablets are poised for developer lift-off: At 62% expressing strong interest, Android has similar enthusiasm to the iPad at an analogous point in time (last January pegged iPad at 58%). This is great news for Android tablet device OEMs. On the other end, new research shows webOS and BlackBerry tablets currently have little interest from developers (16% for both), indicating HP, RIM, and other tablet platform challengers need to generate significant developer enthusiasm well in advance of upcoming launches.

• Fragmentation remains a key concern for Google, with 74% of developer respondents describing iOS as “least fragmented” but only 11% describing Android as such.

Results of First-Ever Mobile Web 2.0 Developer Research

Below are top-line findings that reveal battles going on behind-the-scenes between these popular developer plug-ins (% of respondents say they currently use or will soon use the following APIs in a mobile application):

Social

Facebook slightly leading Twitter 65% to 60%, with Foursquare trailing at 22%. Appcelerator’s direct experience shows Facebook having a key strategic advantage in its popularity as a primary identity system for mobile applications.

Commerce

iOS in-app purchasing and PayPal payments are also locked 49% to 48% in a head-to-head battle for mobile commerce leadership. Of note, PayPal is nearly as popular as Google Checkout (33%) and Amazon (18%) combined.

Media

Use of the camera (58%) far exceeds use of popular photo sharing services Flickr (21%) and TwitPic (19%). Stronger interest in using the camera for barcode scanning (31%) and augmented reality (41%) shows developers have bigger plans for mobile phones than simple photo sharing.

Advertising

iAd (52%) leads AdMob (36%) with developers noting a preference for iAd’s richer ad units and higher click-through rates, even as fill rate remains an issue.

Analytics

Application analytics (54%) is currently the most popular form of analytics, however there is strong interest in transaction (35%) and geo-analytics (42%) as location and commerce take center stage in mobile.

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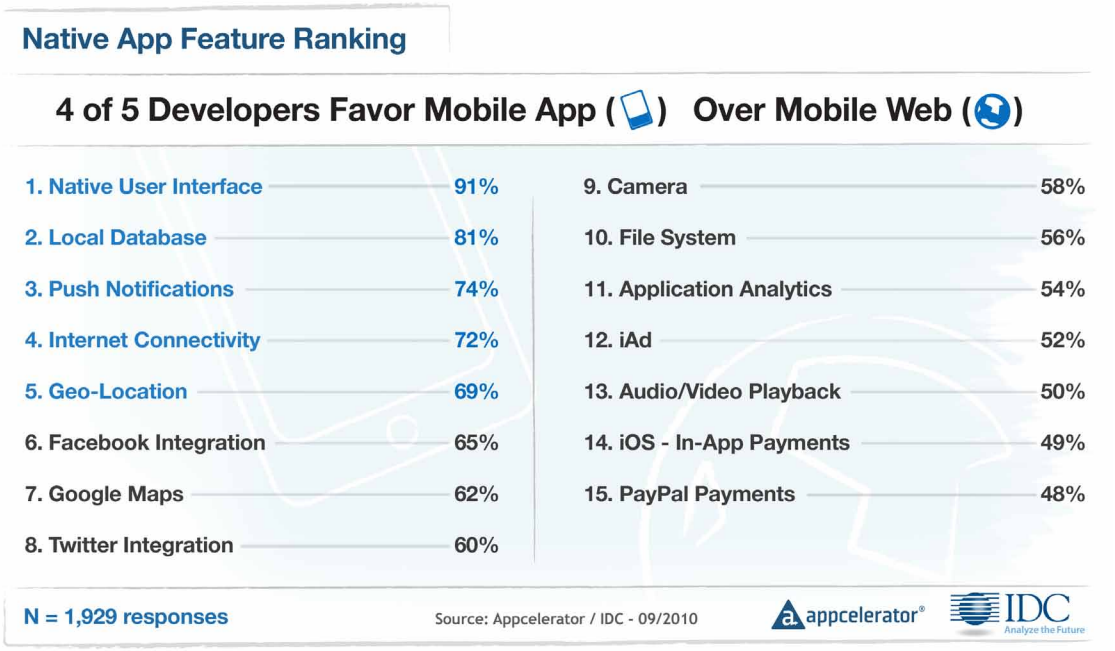
The Future of Apps - Native Leads Mobile Web:

Four out of five developers say their users prefer native applications to mobile websites because of user experience expectations. When ranking features needed for their apps, developers prioritize native features as most important (% of developers who currently use or need feature for next app):


Native App Feature Ranking
4 of 5 Developers Favor Mobile App ( ) Over Mobile Web ( )
1. Native User Interface 91%
2. Local Database 81%
3. Push Notifications 74%
4. Internet Connectivity 72%
5. Geo-Location 69%
6. Facebook Integration 65%
7. Google Maps 62%
8. Twitter Integration 60%
9. Camera 58%
10. File System 56%
11. Application Analytics 54%
12. iAd 52%
13. Audio/Video Playback 50%
14. iOS - In-App Payments 49%
15. PayPal Payments 48%
N = 1,929 responses
Source: Appcelerator / IDC - 09/2010
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Top consumer app categories include: social networking, utility, entertainment, games, and lifestyle applications. Top business applications include: productivity, document management, sales force automation, messaging/communications, and a 3-way tie between finance, retail, and healthcare vertical applications.

Finally, when asked about their thoughts on recent announcements from Oracle and Apple on their enthusiasm for Android and iOS, developers responded:

Oracle Lawsuit / iOS Application Development Restrictions Have Minimal Impact
93 % of developers say...
Oracle's lawsuit has little or no impact on enthusiasm for Android.
83 % of developers say...
Apple's easing iOS development restrictions has little or no impact on enthusiasm for iOS.
N = 1,864 responses
Source: Appcelerator / IDC - 09/2010
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Of particular note, Appcelerator is very pleased to partner with IDC on this expanded quarterly survey and report, and will be partnering with IDC on these surveys and reports going forward.

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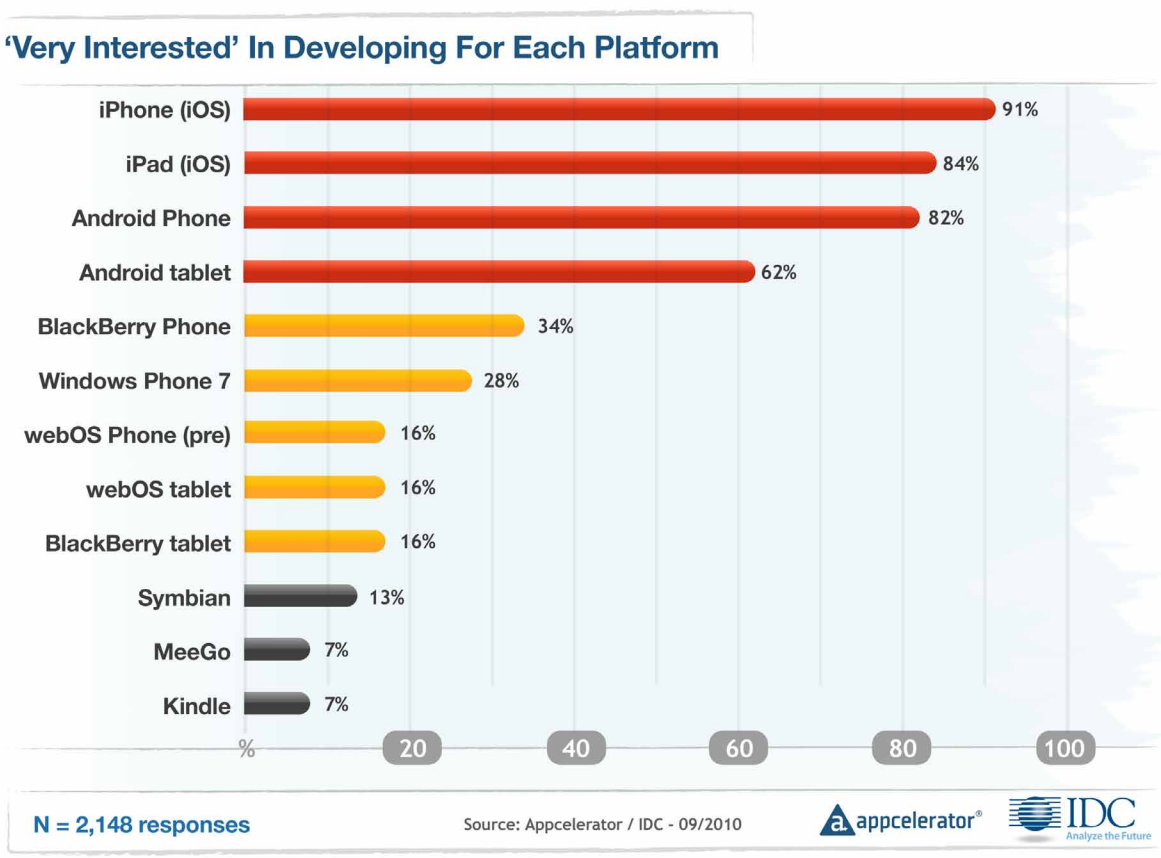
Survey Findings

A key objective of this Q4 report was to go deeper on developer perceptions. Appcelerator and IDC asked additional questions surrounding each mobile OS to understand drivers for adoption and together rounded out our tablet analysis with recently announced webOS tablets and rumored BlackBerry tablets. With over 4,000 applications now deployed on Titanium, Appcelerator and IDC were also able to go deeper on apps: what types of apps are being built, what features/APIs are being used to build them, and what are the key pain points during development?

First Up, a Look At Mobile Platform Priorities:



On the smartphone side, the picture is similar to what it was in June. Beyond Nokia's N8 and reorganization news, there haven't been many major OS-related announcements since the iPhone 4 introduction. iPhone held steady at 91%, Android remains close behind at 82%, and RIM/Windows/Palm/Nokia all trail by similar margins to Appcelerator's last report (subtle shifts see Windows gaining a couple points in advance of their launch while MeeGo falls by almost half with Nokia's recent emphasis on Symbian).

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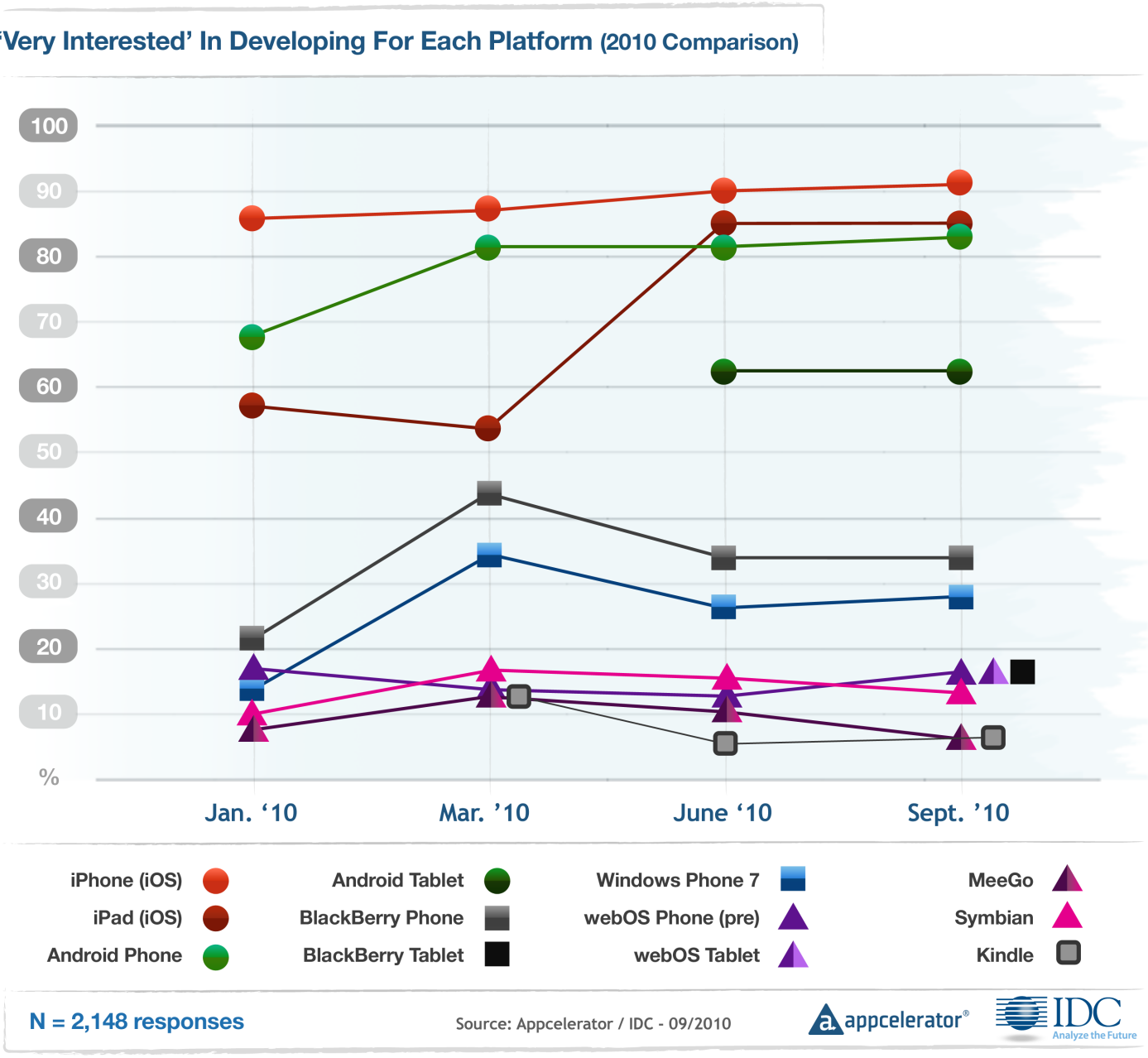
Below is a historical look at how the picture has evolved since Appcelerator conducted the initial survey in January:



Android Tablets Ready For Liftoff. webOS and Rumored BlackBerry Tablet Face Headwinds

Tablets have all the buzz these days, but Appcelerator and IDC also found some surprising differences in perceptions when BlackBerry and webOS tablets were added to the mix. iPad remains the top tablet at 84% of developers saying they are "very interested" in the device. Android tablets also held steady at 62%. However, webOS tablets (recently announced by HP) and rumored BlackBerry tablets scored considerably lower than might have been expected.

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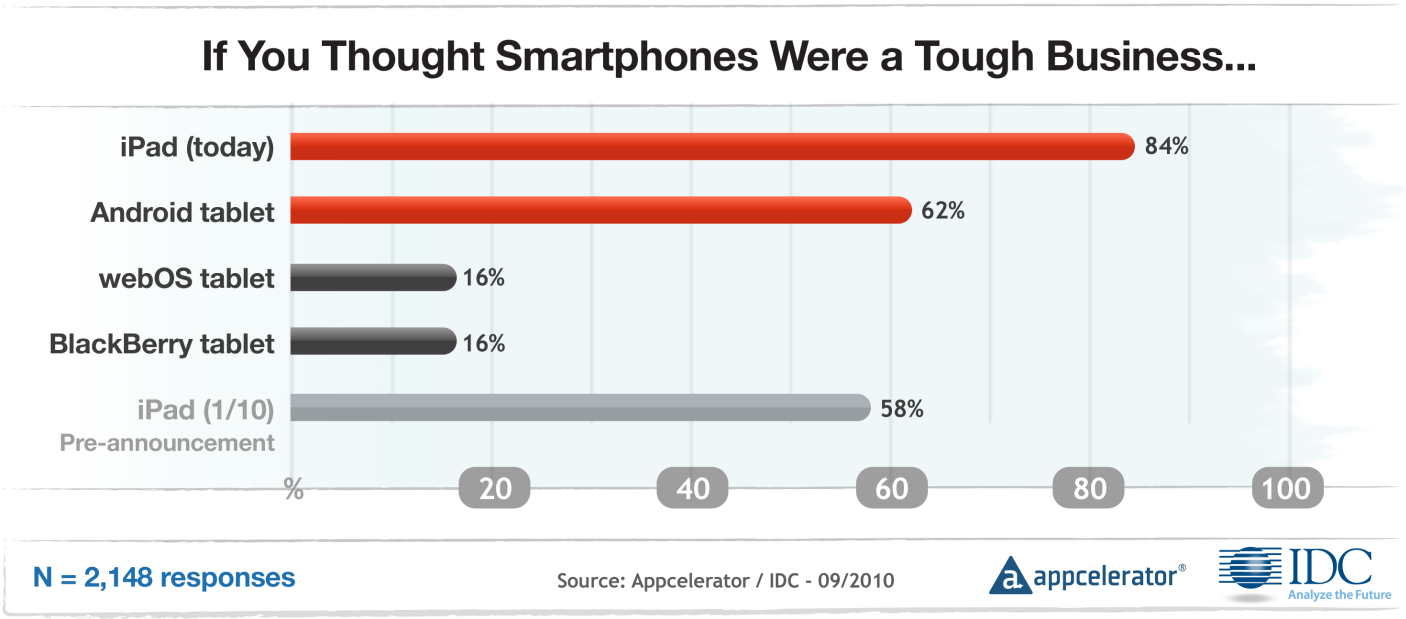
‘Very Interested’ In Developing For Each Platform



Key Takeaway, 2010:

In Appcelerator’s last survey, Appcelerator discussed how developer traction in smartphones leads to “wind at your back” momentum beyond phones. While the industry was discussing the “iSlate” and “Apple Tablet” in January (before it was known as the iPad), 58% of developers were already ‘very interested’ in building apps for the device.

Android is clearly next in line to benefit from this momentum. At 62%, interest in Android is even higher than iPad was (58%) back in January prior to Apple’s announcement. Obviously, this is great news for OEMs looking to roll out tablet devices this Fall and into next year.

Appcelerator and IDC also believe that the opposite is also true: less developer success in phones equates to subdued interest in tablets (and follow-on devices). This is a particular challenge for HP, which acquired Palm for what many consider to be its capabilities beyond phone devices.

So, the first key takeaway is that **developer interest in smartphones is a pre-requisite to developer interest in tablets**. Both Appcelerator and IDC had previously noted this publicly, and this survey underscores that device OEMs without successful smartphone offerings will find it very tough to engage app developers. And the reason for this, beyond obvious market momentum and total addressable market (TAM), is that all the capabilities of the tablet platform itself have been proven out in smartphones. The touch-based user interface, the web browser, media capabilities, etc, have “cut their teeth” on the smallest, most competitive form factor on the planet. Now the primary variables are unique UI elements, form factor, battery life, and price. This, plus market traction, lowers the perceived risk profile for developers.

Key Takeaway, 2011:

Now let’s shift gears to looking beyond tablets and into the connected device battle shaping up for 2011. In particular, Google has already announced its plans for Google TV and OEMs like Samsung, the world’s largest TV manufacturer, are already lining up to ship these devices over the coming months. Apple is also rumored to be revving its iTV product so that it integrates with iPhone, iPad, and obviously the App Store. Once again, a showdown looms. So who leads in developer interest at this stage?

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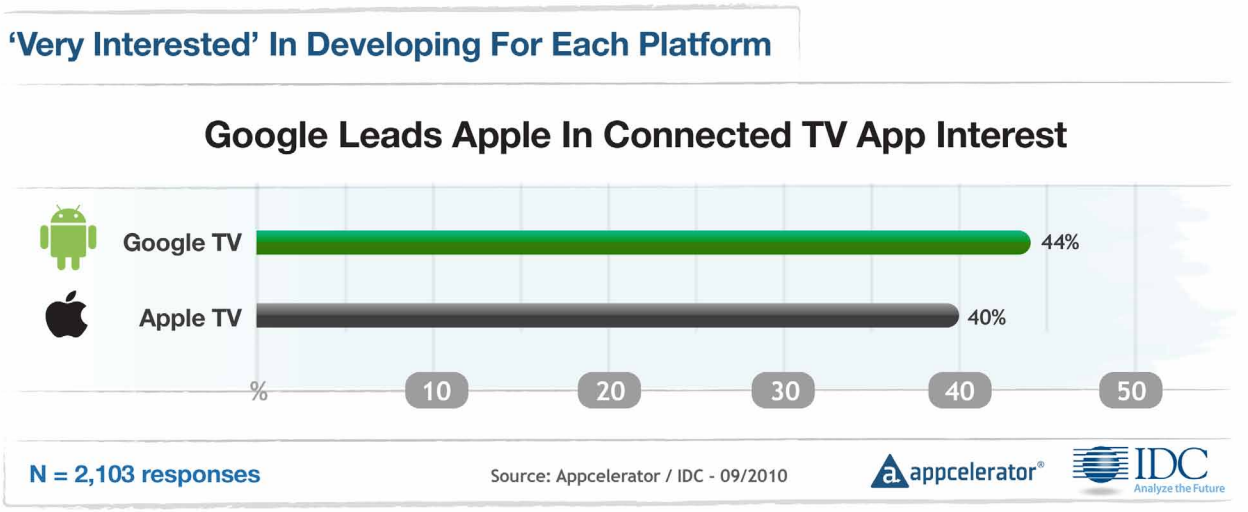

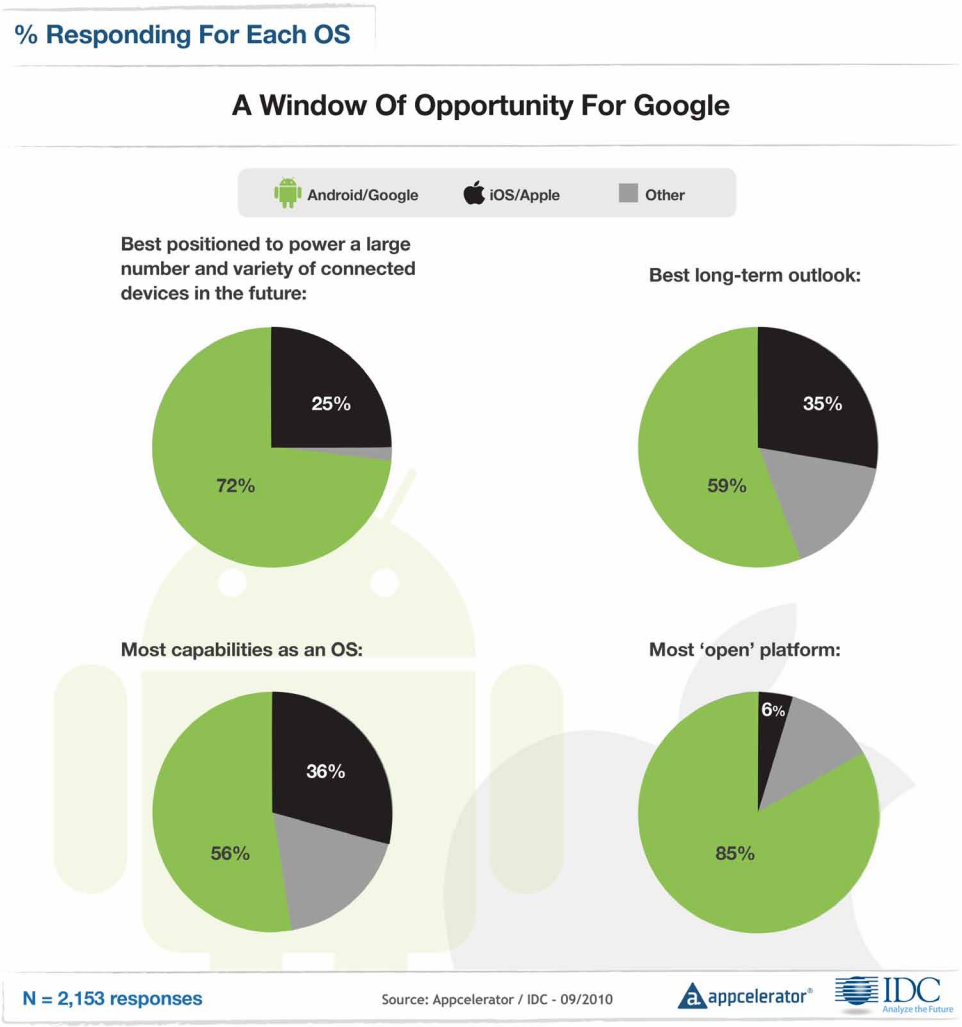

Interestingly enough, despite Apple's lead in developer sentiment with iPhone and iPad, it's Google that edges out Apple when it comes to TVs, 44% to 40%. Appcelerator and IDC believe that this survey indicates **Google's strategic focus on OEM relationships and an open OS that can be embedded in any device will help significantly as it moves into adjacent mass market device categories.** Developers are clearly keying into this trend. But to understand this a bit more, we looked at how developers see Apple and Google across market capability, hardware capability, OS capability, and overall outlook:

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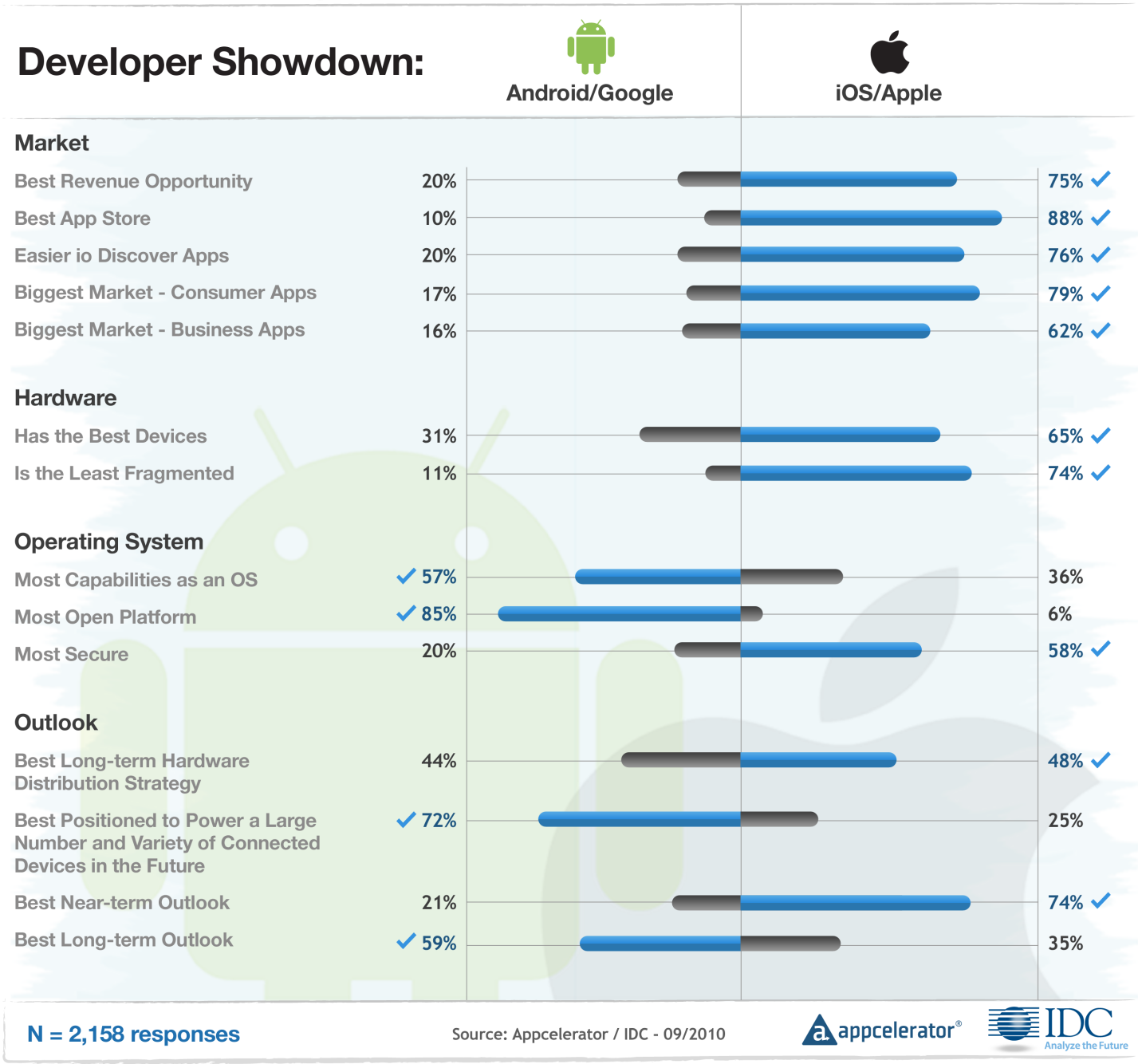
Google vs. Apple



Apple dominates in any question having to do with selling apps. Even in business applications, Apple is seen as the clear leader over BlackBerry, Windows, as well as Android. And discoverability, notoriously an issue with an app store with 250,000 apps in it, still favors Apple by a wide margin. Apple has recently improved iTunes in this area to feature top grossing applications, more sub-categories, and more featured apps.

Apple also leads in having the best devices and this perception has only increased since the iPhone 4 launch in June (where iOS is up a slight 2 points in 3 months).

Android maintains its advantage in terms of operating system capabilities. Also, by a wide margin, Android is considered the most open platform, even after Apple's recent changes to its developer agreement to provide additional clarity to its app approval process and open up iOS to other development tools/languages.

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Most importantly, Android is widely seen as the OS with the best long-term outlook (58.6%), increasing its lead over iOS by 10.1 points in the past 3 months. As seen in the chart on the previous page, developers are already keying in on Google's opportunities in the TV space on which Apple has yet to fully execute. Another new question shows that developers favor Android 72% to 25% over iOS as the platform "best positioned to power a large number and variety of connected devices in the future." As Android tablets and TVs enter the market, we'll get a better reading on how this developer enthusiasm translates into app innovation and success, but this provides an important baseline reading.

Native Application Feature Priorities

Going deeper on key developer trends, Appcelerator and IDC also looked at the convergence between mobile and the Web 2.0 capabilities that are making their way to different screens and devices. Specifically, we researched the social, commerce, advertising, media, analytic, and device APIs that developers use every day in their mobile applications. Our first finding is that there is an overall prioritization given to native smartphone device capabilities. In fact, 4 out of 5 developers say their users value a native mobile application experience over a mobile web experience. Respondents went on to rank what features are most important in their applications today:

Native App Feature Ranking

4 of 5 Developers Favor Mobile App ( ) Over Mobile Web ( )

1. Native User Interface	91%	9. Camera	58%
2. Local Database	81%	10. File System	56%
3. Push Notifications	74%	11. Application Analytics	54%
4. Internet Connectivity	72%	12. iAd	52%
5. Geo-Location	69%	13. Audio/Video Playback	50%
6. Facebook Integration	65%	14. iOS - In-App Payments	49%
7. Google Maps	62%	15. PayPal Payments	48%
8. Twitter Integration	60%		

N = 1,929 responses

Source: Appcelerator / IDC - 09/2010

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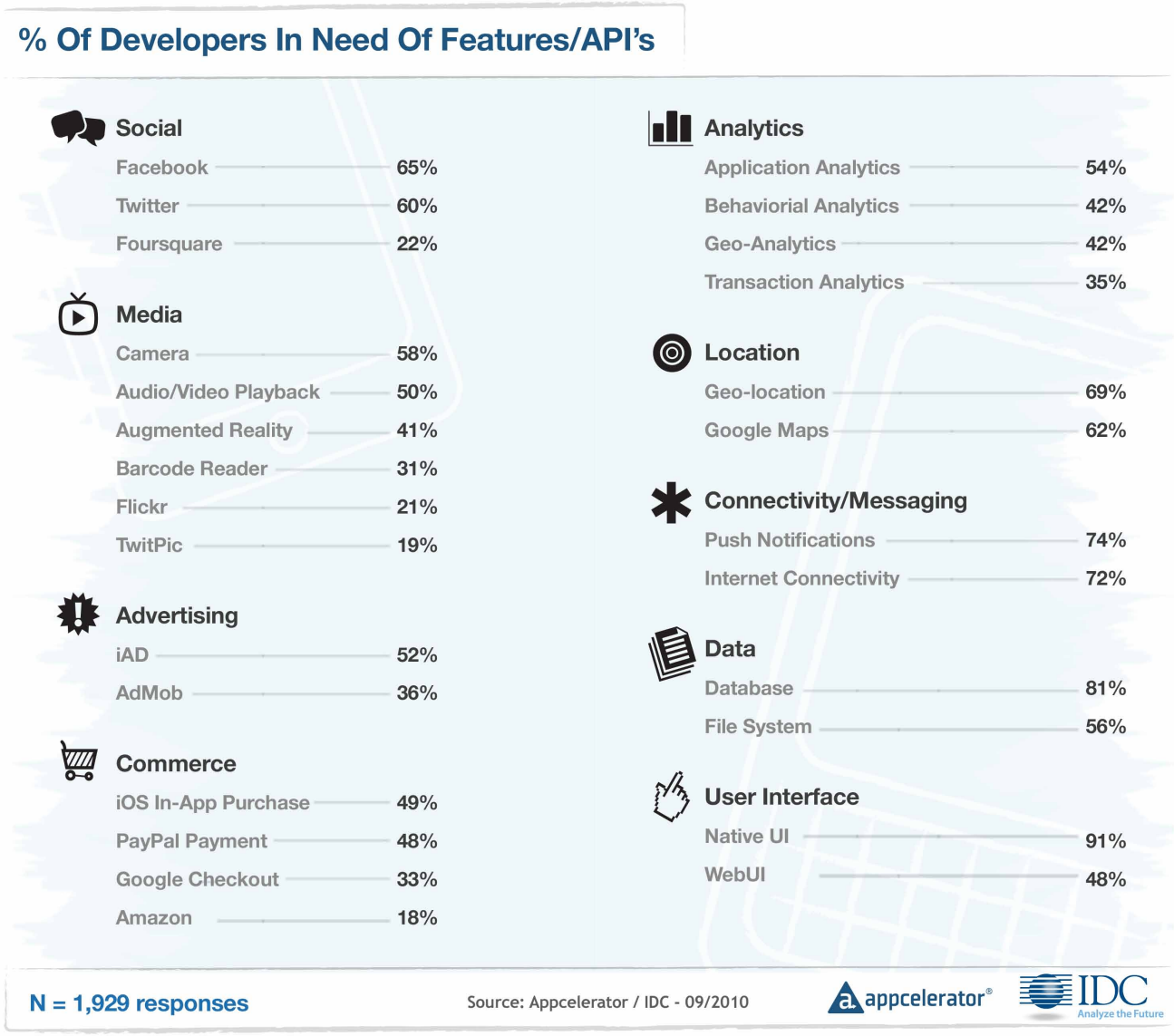
Why this is important:

Developers provide a forward-looking view into the experiences that consumers use every day. Appcelerator and IDC found several of these priorities surprising and it will be interesting to see how these priorities shape the app landscape going forward. That a database ranks higher than Internet-connectivity indicates to us that smartphones and other connected devices are truly considered mini-computers by developers. The cloud, as important as it is to always-on capability, is only one part of the “anywhere computing” picture.

We also found that push notifications were ranked higher than we might have expected. Certainly important, a high ranking for this feature shows the increasing importance placed on real-time communication. Note that this feature ranks close to Internet connectivity and even location. It’s interesting to consider how developers think deeply about “when you are” and “where you are” context in their applications. And this time and location context is of higher importance in mobile from a developer perspective than, say, social functionality.

The Battle for Mobile Web 2.0 Developer Supremacy

Within each category, we also found major mobile Web 2.0 showdowns taking place between Facebook and Twitter, PayPal and Amazon, Flickr and Twitpic, iAd and AdMob, etc. Below is a detailed breakdown on how the leaders in each API category fared:



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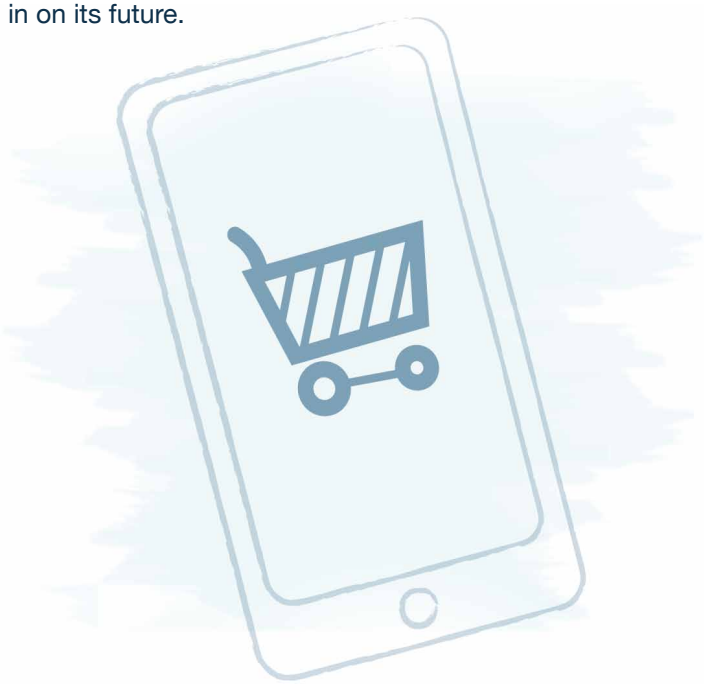
Key Takeaways Within Category:

Social

Facebook leading Twitter isn't that surprising, but it certainly appears that, as in the web, the two leading social APIs are being paired together in many applications developed today. Of particular note, we find that Facebook has a strategic advantage in many applications in that Facebook Connect is used for identity as well as sharing. Twitter doesn't have an identity system that can be used throughout a mobile application like Facebook does, and Foursquare allows for Facebook Connect identities to be used in place of its own.

Commerce

As Apple's app store has become more competitive, iOS in-app purchasing has increased in importance as a viable business model for developers. What's interesting is that PayPal, which doesn't have the benefit of being included in a mobile SDK or used as a device's default payment option like iTunes, is ranked almost as high as Apple's iOS in-app payments. What's even more remarkable is that PayPal leads iOS in Europe and Asia as a preferred method of payment and is nearly as popular as Google Checkout and Amazon payments combined. With so much potential for on and offline commerce, this battle is clearly heating up, but it's very interesting to see developers already weighing in on its future.



Media

Another category full of potential, app developers favor the ubiquitous camera as more important than media playback. Even more interesting, the camera is considerably more popular than Flickr or Twitpic photo sharing. This can be explained by the high degree of interest in using the camera for new and uniquely mobile application scenarios. Barcode reading for mobile commerce and identity scenarios as well as augmented reality for enhanced location-based scenarios leverage the camera in exciting new ways.

Advertising

iAd and AdMob are prioritized about five times higher than other mobile ad networks like Greystripe or Millennial. Appcelerator and IDC found it interesting that iAd led AdMob, which points to the power of having a default ad network bundled with the iOS SDK. Given Appcelerator developer's preference for native applications, there may also be a premium placed on the richer ad units that are possible with iAd.

Analytics

The lifeblood of any successful application, application analytics enable developers to understand what works, what doesn't, and what new capabilities should be added to an application. Application analytics are included in every Titanium-based application so developers have a uniform way of measuring application and feature usage. But interest lies in advanced analytics capabilities as well. Transaction analytics open up new ways to understand consumer purchase patterns. And geo-analytics allow developers to visualize check-ins in real-time. Appcelerator will soon be making a major announcement on an enhanced geo-analytics product that will change the way developers think about analyzing their geo-related data, and Appcelerator and IDC plan to include additional feature survey questions around geo-analytics to capture changing developer attitudes as they avail themselves of such additional capabilities.

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Minimal Impact From Oracle Lawsuit and Apple's Recent Easing of Developer Restrictions

Like many in the industry, Appcelerator and IDC wanted to know: what has the impact been on developers from the Oracle-Google litigation and Apple's recent major announcements? Oracle is suing Google over the use of Java in Android, which appears to strike at the heart of Android itself. On the more positive side, Apple recently clarified its developer policy so that you can use any development platform to write iOS applications as long as, well, your app doesn't stink by Apple's standards.

So What Impact Did Both of These Statements Have on Developers?

Appcelerator and IDC had previously noted that neither of these developments would likely have much effect, and this survey confirmed that guidance:

Oracle Lawsuit / iOS Application Development Restrictions Have Minimal Impact
93 % of developers say...
Oracle's lawsuit has little or no impact on enthusiasm for Android.
83 % of developers say...
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With Apple, we've actually seen extremely high levels of developer enthusiasm over the past few months despite vagueness in terms of service changes in April. Appcelerator counts over 4,000 applications written with Titanium to date, with "only" 500 developed in total prior to Apple's initial announcement (no apps were ever rejected). IDC had noted that developers did not expect Apple to enforce most of these policies as initially written, and indeed that was generally the case. So developers clearly saw continued opportunity, and accepted the ambiguity, even prior to Apple's clarification in early September.

With Android, developers see straight through the Intellectual Property Rights wars that are so common to mobile: Google and Oracle have too much collectively invested in Java's success in Android and their individual futures in mobility to not settle the litigation. Whatever the precise outcome, developers believe those two companies will resolve the issue with minimal to no impact on anyone else.

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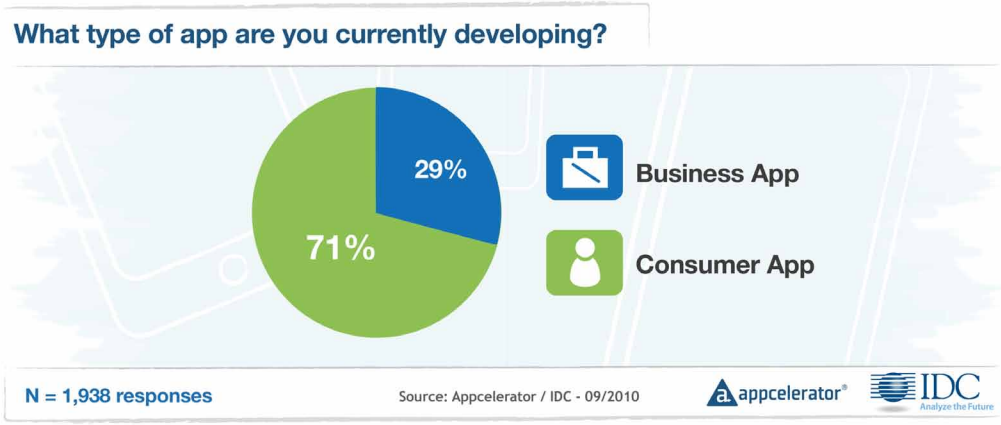
Bringing The Best of The Web Together With The Best of Mobile Apps

Finally, we wrap up with a look to the future of mobile application development. Given the broad range of Appcelerator's 70,000 native app developers who are now deploying 1,000+ new mobile apps each month, Appcelerator and IDC wanted to highlight the types of applications that are being built today.



There are two common threads among the above categories: These applications are web-connected and they leverage the power of native smartphone capabilities. We found the top business application categories particularly interesting as we believe the next big wave of innovation may come from business application developers tapping into vast stores of data in the cloud and bringing this data to bear on highly local experiences. Here you can see the vertical industries that may take the lead in this space: CRM, healthcare, finance, and retail.

Concluding Thoughts

Mobile is an exciting space right now because it in some way touches almost every single consumer, business, and developer on the planet and the shifting dynamics each quarter bring a whole host of new opportunities to understand. While Google and Apple duke it out, there are many other equally important, rapidly shifting dynamics playing out as well. Which new connected devices will see developer adoption? What will the future hold for the $1 trillion+ mobile commerce opportunity? How will the Titans of the Internet – Facebook, eBay, Twitter, Yahoo, Amazon, Google, Microsoft – fare in mobile over the next few years? Appcelerator and IDC hope that this quarterly survey and report has helped you understand some of these dynamics from the perspective of the app developers who are shaping the landscape of our mobile and anywhere computing generation.

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About the Appcelerator / IDC Q4 Mobile Developer Report

This survey was conducted immediately after Apple's recent developer policy announcement from September 14-16, 2010. Appcelerator and IDC surveyed 2,363 of over 70,000 developers who use Appcelerator's Titanium application development platform on their plans, interests and perceptions of the major mobile and tablet OS providers. Developers were individually invited from Appcelerator's user registration database to complete a web response survey. A raffle for a free iPad and $100 Amazon gift certificate was made and only one response per user was allowed. Respondents' answers were given freely with no incentive or compensation for their participation.

Appcelerator developers represent a uniquely broad spectrum of backgrounds. 38% of respondents classify themselves as independent developers, with the other 62% coming from businesses. Appcelerator has a global audience, with 43% surveyed stating they live in North America, 38% in Europe, and 19% throughout the rest of the world. Note also that Appcelerator developers come from a web development background, so although they build applications with Appcelerator Titanium, they are used to working across multiple platforms.

About Appcelerator

Appcelerator enables web developers, ad agencies, ISVs, and enterprises to take advantage of the explosive growth in mobile, desktop, and tablet applications without delay. The company's flagship offering, Appcelerator Titanium, is the only open source platform to enable cross-platform development, from a single codebase, at web development speed. Appcelerator's customers can leverage their existing skills and open, industry standard technologies to create and commercialize mobile, desktop, and Web apps from a single platform, decreasing time-to-market and development costs, increasing customer adoption and revenues, and enjoying greater flexibility and control. For more information, please visit **www.appcelerator.com**.

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Report Inquiries:

Scott Schwarzhoff
VP, Marketing - Appcelerator
sschwarzhoff@appcelerator.com
Office: 650-269-5962

Scott Ellison
VP, Mobile & Wireless - IDC
sellison@idc.com
Office: 650-350-6440

Media Inquiries:

Carmen Hughes
Ignite PR
Carmen@ignitepr.com
Office: 650.227.3280 ext. 1
Mobile: 650.576.6444

Michael Shirer
IDC
press@idc.com
Office: 508-935-4200